

**BOBBY JINDAL**  
GOVERNOR



**HAROLD LEGGETT, Ph.D.**  
SECRETARY

**State of Louisiana**  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**ENVIRONMENTAL SERVICES**

Certified Mail No.

Agency Interest (AI) No. 1291  
Activity No. PER20040003

Mr. Mark Suellentrop  
Facility General Manager  
Cabot Corporation  
2066 Cabot Road  
Ville Platte, LA 70586

**RE: Prevention of Significant Deterioration (PSD) Permit**  
**PSD-LA-587(M-2)**  
**Cabot Corporation - Ville Platte Plant**  
**Ville Platte, Evangeline Parish, Louisiana**

Dear Mr. Suellentrop:

Enclosed is your permit, PSD-LA-587(M-2). This permit does not authorize the construction of any new or a major modification of any existing sources. This modification incorporates changes due to equipment replacement and de-bottlenecking authorized by the Department's letter dated September 20, 2004. The permit also authorizes other minor changes to the facility.

Should you have any questions, contact Rusty J. Jack of the Air Permits Division at (225) 219-3066.

Sincerely,

Cheryl Sonnier Nolan  
Assistant Secretary

\_\_\_\_\_  
Date

CSN: rjj

c: US EPA Region VI

**Agency Interest No. 1291**

**PSD-LA-587(M-2)**

**AUTHORIZATION TO CONSTRUCT AND OPERATE A MODIFIED MAJOR SOURCE  
PURSUANT TO THE PREVENTION OF SIGNIFICANT DETERIORATION  
REGULATIONS IN LOUISIANA ENVIRONMENTAL REGULATORY CODE,  
LAC 33:III.509**

In accordance with the provisions of the Louisiana Environmental Regulatory Code, LAC 33:III.509,

Cabot Corporation  
Ville Platte Plant  
2066 Cabot Rd  
Ville Platte, LA 70586

is incorporating changes due to replacement and de-bottlenecking of existing equipment and is authorized to make minor changes at the Cabot Corporation - Ville Platte Plant near

2066 Cabot Rd  
Ville Platte, LA 70586

subject to the emissions limitations, monitoring requirements, and other conditions set forth hereinafter.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 2009.

Cheryl Sonnier Nolan  
Assistant Secretary  
Office of Environmental Services  
Louisiana Department of Environmental Quality

## BRIEFING SHEET

**Ville Platte Plant**  
**Agency Interest No.: 1291**  
**Cabot Corporation**  
**Ville Platte, Evangeline Parish, Louisiana**  
**PSD-LA-587(M-2)**

### **PURPOSE**

Cabot received authorization to replace and de-bottleneck existing equipment. This modification is to incorporate the changes associated with the replacement and de-bottlenecking of equipment. The modification also includes other minor facility changes.

### **RECOMMENDATION**

Incorporation of the previous authorization to replace and de-bottleneck existing equipment and issuance of a permit.

### **REVIEWING AGENCY**

Louisiana Department of Environmental Quality, Office of Environmental Services, Air Permits Division

### **PROJECT DESCRIPTION**

Originally, Cabot proposed the following modifications, which were approved in Title V Permit 0920-00001-V0 and PSD Permit PSD-LA-587(M-1), both issued on November 4, 1999:

<b>Unit</b>	<b>1999 Modifications</b>
1	<ul style="list-style-type: none"> <li>- Improve product recovery by replacing dryer purge gas scrubber with filter</li> <li>- Interconnect with Units 1 and 4</li> </ul>
2	<ul style="list-style-type: none"> <li>- Improve product recovery by replacing dryer purge gas scrubber with filter</li> <li>- Interconnect with Units 1 and 4</li> <li>- Add 2nd reactor (from Unit 3)</li> <li>- Improve product recovery in process filter</li> </ul>
3	<ul style="list-style-type: none"> <li>- Improve product recovery by replacing dryer purge gas scrubber with filter</li> <li>- Move reactor to Unit 2</li> <li>- Add 3 new reactors</li> <li>- Improve product recovery in process filter</li> </ul>
4	<ul style="list-style-type: none"> <li>- Interconnect with Units 1 and 2</li> </ul>
5	<ul style="list-style-type: none"> <li>- Add 2 reactors</li> <li>- Add main unit filter</li> <li>- Add process filter</li> <li>- Add 2 dryers</li> <li>- Add flare</li> <li>- Add support systems (e.g., purge gas filter, transfer, etc.)</li> </ul>

## BRIEFING SHEET

**Ville Platte Plant**  
**Agency Interest No.: 1291**  
**Cabot Corporation**  
**Ville Platte, Evangeline Parish, Louisiana**  
**PSD-LA-587(M-2)**

Unit	1999 Modifications
Product Handling	<ul style="list-style-type: none"> <li>- Add 5 new tanks</li> <li>- Add grinding station and tank</li> <li>- Improve product recovery in packaging warehouse</li> </ul>
Site	- Achieve total site production of 700 million pounds per year

Following issuance of the permits, Cabot was in a program of construction. During the construction process, changing market conditions resulted in a reassessment of the planned modifications. In lieu of adding more major equipment at the site, Cabot believed that it would be more effective to replace and/or upgrade existing pieces of equipment. By letter dated September 20, 2004, the Department made no objection to the design changes listed below.

Unit	2003 Actual Design Changes
1	Improved product recovery by replacing dryer purge gas scrubber with filter, while replacing main Unit filter structure due to intricacy with purge gas filter upgrade
	Interconnected with Units 2 and 4 while venting new dryer purge gas filter to interconnected dryer stack
	In lieu of adding new Unit 5 reactor, heat exchanger, dryer, etc., adjusted Unit 1 reactor, replaced Unit 1 heat exchanger, and debottlenecked Unit 1 dryer
2	Improved product recovery by replacing dryer purge gas scrubber with filter, while replacing main Unit filter structure due to intricacy with purge gas filter upgrade
	Interconnected with Units 1 and 4 while venting new dryer purge gas filter to interconnected dryer stack
	In lieu of additional reactor and process filter changes, replaced heat exchanger and dryer
3	Improved product recovery by replacing dryer purge gas scrubber with filter, while replacing main Unit filter structure due to intricacy with purge gas filter upgrade
	In lieu of additional two reactors and process filter changes, adjusted reactor and replaced heat exchanger and dryer
4	Interconnected with Units 1 and 2
	In lieu of adding new Unit 5 second dryer, repaired and de-bottlenecked dryer
5	As indicated above, in lieu of adding equipment as a new Unit 5, adjusted Unit 1 reactor, replaced Unit 1 heat exchanger, and de-bottlenecked Unit 1 and 4 dryers

## BRIEFING SHEET

**Ville Platte Plant**  
**Agency Interest No.: 1291**  
**Cabot Corporation**  
**Ville Platte, Evangeline Parish, Louisiana**  
**PSD-LA-587(M-2)**

Unit	2003 Actual Design Changes
Product Handling	Added dust controls in lieu of packaging warehouse modifications, additional tanks, and grinding station
Site	Reduced 1999 permitted production of 700 million pounds per year to 455 million pounds per year

In this permit modification, PSD-LA-587 (M-2), the following changes will be made at the Ville Platte Plant:

- Upgrading of all process filter bags (EPNs 25, 66-93, 32-95, and 69),
- Elimination of the main unit heat load vent in Unit 3 (EPN 7) and venting through the unit's flare (EPN 7-96),
- Removal of the spare feedstock heater (EPN 38) from service,
- Removal of the Spencer vacuum system bag filter at the North Warehouse (EPN 50) from service,
- Removal of the Process Boiler (EPN 74) from service,
- Removal of the Waste Carbon Black Incinerator (EPN 40) from service,
- Removal of three planned warm-up vents (EPNs 64B-2B, 64C-3B, and 64C-3C) from service, and
- Installation of equipment associated with a conversion of the VP-1 Unit.

Emission changes associated with the 2003 design changes and the changes proposed in this permit, PSD-LA-587 (M-2), are as follows:

Pollutant	Baseline Actual	Proposed Emissions
PM <sub>10</sub>	380.14	291.31
CO	110,869.48	9,750.14
SO <sub>2</sub>	23,538.87	24,548.40
NO <sub>x</sub>	1,425.93	1,551.34
VOC	3,502.32	361.29

Pollutant	Change (Emission Increases/Decreases)	<i>de minimis</i> Emissions Rate	Netting Required
PM <sub>10</sub>	-48.91	15	No
CO	+ 2,982.08	100	Yes
SO <sub>2</sub>	+ 1,315.54	40	Yes
NO <sub>x</sub>	+ 143.61	40	Yes
VOC	+ 87.13	40	Yes

## BRIEFING SHEET

**Ville Platte Plant**  
**Agency Interest No.: 1291**  
**Cabot Corporation**  
**Ville Platte, Evangeline Parish, Louisiana**  
**PSD-LA-587(M-2)**

<b>Pollutant</b>	<b>Net Emissions Change (TPY)</b>	<b><i>de minimis</i> Emission Rate (TPY)</b>	<b>PSD Review Required</b>
CO	-83,075.94	100	No
SO <sub>2</sub>	+1,315.54	40	Yes
NO <sub>x</sub>	+143.61	40	Yes
VOC	-928.65	40	No

### **TYPE OF REVIEW**

This permit includes updates to reflect approvals by the Department. Sulfur dioxide (SO<sub>2</sub>) and nitrogen oxide (NO<sub>x</sub>) emissions are above PSD significance levels. Therefore, the requested permit was reviewed in accordance with PSD regulations for SO<sub>2</sub> and NO<sub>x</sub> emissions. Emissions of LAC 33:III.Chapter 51-regulated toxic air pollutants (TAP) have been reviewed pursuant to the requirements of the Louisiana Air Quality Regulations.

### **BEST AVAILABLE CONTROL TECHNOLOGY**

SO<sub>2</sub> and NO<sub>x</sub> emissions are above PSD significance levels and must undergo PSD analyses. The selection of control technology was based on the BACT analysis using a "top down" approach and did not include consideration of control of toxic materials.

BACT for SO<sub>2</sub> was established under the 1999 PSD permit, PSD-LA-587(M-1), to be the use of a 4% by weight sulfur feedstock on annual average. For NO<sub>x</sub>, BACT was determined to be proper combustion practice (use of Cabot's proprietary flare) for tail gas combustion and no controls for the tail gas fired dryers.

### **AIR QUALITY IMPACT ANALYSIS**

Prevention of Significant Deterioration regulations require an analysis of existing air quality for those pollutants emitted in significant amounts from a proposed major modification.

Industrial Source Complex, Short-Term, Version 3 (ISCST3) modeling indicates maximum ground level concentrations of NO<sub>x</sub> are below the ambient significance levels and preconstruction monitoring exemption levels. Therefore, no preconstruction monitoring, increment analysis, or refined modeling is required for NO<sub>x</sub>.

Because the maximum modeled SO<sub>2</sub> impact exceeded its PSD significance level refined NAAQS modeling and a determination of PSD increment consumption was required. Modeling demonstrates compliance with the NAAQS and allowable Class II PSD increment limit for SO<sub>2</sub>.

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**PSD-LA-587(M-2)**

**ADDITIONAL IMPACTS**

Soils, vegetation, and visibility will not be adversely impacted by the proposed facility, nor will any Class I area be affected. The project will not result in any significant secondary growth effects. No new permanent jobs will be created.

**PROCESSING TIME**

Application Dated:	August 19, 2004
Application Received:	August 20, 2004
Additional Information Dated:	April 26, 2007 and May 21, 2007
Effective Completeness Date:	April 14, 2009

**PUBLIC NOTICE**

A notice requesting public comment on the proposed project was published in *The Advocate*, Baton Rouge, Louisiana, on <<Date>>, 200x; and in <<Local Paper>>, <<City>>, Louisiana, on <<Date>>, 200x. Copies of the public notice were also mailed to individuals who have requested to be placed on the mailing list maintained by the Office of Environmental Services on <<Date>>, 200x. A proposed permit was also submitted to U.S. EPA Region VI on <<Date>>, 200x. All comments will be considered prior to a final permit decision.

## PRELIMINARY DETERMINATION SUMMARY

**Ville Platte Plant**  
**Agency Interest No.: 1291**  
**Cabot Corporation**  
**Ville Platte, Evangeline Parish, Louisiana**  
**PSD-LA-587 (M-2)**  
**April 14, 2009**

### I. APPLICANT

Cabot Corporation  
 Ville Platte Plant  
 2066 Cabot Rd  
 Ville Platte, LA 70586

### II. LOCATION

Cabot Corporation - Ville Platte Plant is located at 2066 Cabot Rd, Ville Platte, Louisiana. Approximate UTM coordinates are 571.5 kilometers East, 3401.8 kilometers North, zone 15.

### III. PROJECT DESCRIPTION

Originally, Cabot proposed the following modifications, which were approved in Title V Permit 0920-00001-V0 and PSD Permit PSD-LA-587(M-1), both issued on November 4, 1999:

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1	<ul style="list-style-type: none"> <li>- Improve product recovery by replacing dryer purge gas scrubber with filter</li> <li>- Interconnect with Units 1 and 4</li> </ul>
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Product Handling	<ul style="list-style-type: none"> <li>- Add 5 new tanks</li> <li>- Add grinding station and tank</li> <li>- Improve product recovery in packaging warehouse</li> </ul>
Site	<ul style="list-style-type: none"> <li>- Achieve total site production of 700 million pounds per year</li> </ul>



## PRELIMINARY DETERMINATION SUMMARY

**Ville Platte Plant**  
**Agency Interest No.: 1291**  
**Cabot Corporation**  
**Ville Platte, Evangeline Parish, Louisiana**  
**PSD-LA-587 (M-2)**  
**April 14, 2009**

Following issuance of the permits, Cabot was in a program of construction. During the construction process, changing market conditions resulted in a reassessment of the planned modifications. In lieu of adding more major equipment at the site, Cabot believed that it would be more effective to replace and/or upgrade existing pieces of equipment. By letter dated September 20, 2004, the Department made no objection to the design changes listed below.

<b>Unit</b>	<b>2003 Actual Design Changes</b>
1	Improved product recovery by replacing dryer purge gas scrubber with filter, while replacing main Unit filter structure due to intricacy with purge gas filter upgrade
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5	As indicated above, in lieu of adding equipment as a new Unit 5, adjusted Unit 1 reactor, replaced Unit 1 heat exchanger, and de-bottlenecked Unit 1 and 4 dryers
Product Handling	Added dust controls in lieu of packaging warehouse modifications, additional tanks, and grinding station
Site	Reduced 1999 permitted production of 700 million pounds per year to 455 million pounds per year

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**Ville Platte Plant**  
**Agency Interest No.: 1291**  
**Cabot Corporation**  
**Ville Platte, Evangeline Parish, Louisiana**  
**PSD-LA-587 (M-2)**  
**April 14, 2009**

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- Removal of the Process Boiler (EPN 74) from service,
- Removal of the Waste Carbon Black Incinerator (EPN 40) from service,
- Removal of three planned warm-up vents (EPNs 64B-2B, 64C-3B, and 64C-3C) from service, and
- Installation of equipment associated with a conversion of the VP-1 Unit.

Estimated emissions, in tons per year, are as follows:

Pollutant	Baseline Actual	Proposed Emissions
PM <sub>10</sub>	380.14	291.31
CO	110,869.48	9,750.14
SO <sub>2</sub>	23,538.87	24,548.40
NO <sub>x</sub>	1,425.93	1,551.34
VOC	3,502.32	361.29

Pollutant	Project Change	<i>de minimis</i> Emissions Rate	Netting Required
PM <sub>10</sub>	-48.91	15	No
CO	+ 2982.08	100	Yes
SO <sub>2</sub>	+ 1315.54	40	Yes
NO <sub>x</sub>	+ 143.61	40	Yes
VOC	+ 87.13	40	Yes

Pollutant	Net Emissions Change	<i>de minimis</i> Emission Rate	PSD Review Required
CO	-83,075.04	100	No
SO <sub>2</sub>	+1,315.54	40	Yes
NO <sub>x</sub>	+143.61	40	Yes
VOC	-928.65	40	No

## **PRELIMINARY DETERMINATION SUMMARY**

**Ville Platte Plant**  
**Agency Interest No.: 1291**  
**Cabot Corporation**  
**Ville Platte, Evangeline Parish, Louisiana**  
**PSD-LA-587 (M-2)**  
**April 14, 2009**

### **IV. SOURCE IMPACT ANALYSIS**

A proposed net increase in the emission rate of a regulated pollutant above de minimis levels for new major or modified major stationary sources requires review under Prevention of Significant Deterioration regulations, 40 CFR 52.21. PSD review entails the following analyses:

- A. A determination of the Best Available Control Technology (BACT);
- B. An analysis of the existing air quality and a determination of whether or not preconstruction or postconstruction monitoring will be required;
- C. An analysis of the source's impact on total air quality to ensure compliance with the National Ambient Air Quality Standards (NAAQS);
- D. An analysis of the PSD increment consumption;
- E. An analysis of the source related growth impacts;
- F. An analysis of source related growth impacts on soils, vegetation, and visibility;
- G. A Class I Area impact analysis; and
- H. An analysis of the impact of toxic compound emissions.

#### **A. BEST AVAILABLE CONTROL TECHNOLOGY**

Under current PSD regulations, an analysis of "top down" BACT is required for the control of each regulated pollutant emitted from a modified major stationary in excess of the specified significant emission rates. The top down approach to the BACT process involves determining the most stringent control technique available for a similar or identical source. If it can be shown that this level of control is infeasible based on technical, environmental, energy, and/or cost considerations, then it is rejected and the next most stringent level of control is determined and similarly evaluated. This process continues until a control level is arrived at which cannot be eliminated for any technical, environmental, or economic reason. A technically feasible control strategy is one that has been demonstrated to function efficiently on identical or similar processes. Additionally, BACT shall not result in emissions of any pollutant which would exceed any applicable standard of 40 CFR Parts 60 and 61.

This permit does not authorize the construction of any new or a major modification of any existing sources. This modification incorporates changes due to equipment replacement and de-bottlenecking authorized by the Department's letter dated September 20, 2004. The permit also authorizes other minor changes to the facility. BACT analyses are required for SO<sub>2</sub> and NO<sub>x</sub>, emissions due to de-bottlenecking.

## **PRELIMINARY DETERMINATION SUMMARY**

**Ville Platte Plant  
Agency Interest No.: 1291  
Cabot Corporation  
Ville Platte, Evangeline Parish, Louisiana  
PSD-LA-587 (M-2)  
April 14, 2009**

### **BACT Analyses for SO<sub>2</sub>**

Controls of SO<sub>2</sub> emissions are categorized under pre-process and post-process control technologies. Post-process control technologies including tail gas and flue gas desulfurization were analyzed and found to be technically infeasible or cost prohibitive as BACT. Pre-process control technologies include feedstock desulfurization and limitation of sulfur content of purchased feedstock. Feedstock desulfurization was determined not to be commercially available.

A study commissioned by the company determined that feedstock lower than 4 wt% would not be readily available for all five carbon black plants in Louisiana and the added cost would mean the plant would not be economically viable.

A limitation of sulfur content of the feedstock oil to 4 wt% was determined to be the BACT for SO<sub>2</sub> emissions.

BACT for SO<sub>2</sub> was established under PSD-LA-587(M-1), issued November 4, 1999, and has not changed as a result of the proposed changes.

### **BACT Analyses for NO<sub>x</sub>**

Controls of NO<sub>x</sub> emissions from combustion processes include design and proper operating procedures and flue gas treatment. Flue gas treatments such as selective catalytic reduction or selective non-catalytic reduction were considered technically infeasible for application to the flares and economically unsuitable for application to other process equipment.

Design and proper operation were determined to be BACT for NO<sub>x</sub> for all combustion devices.

BACT for NO<sub>x</sub> was established under PSD-LA-587(M-1), issued November 4, 1999, and has not changed as a result of the proposed changes.

## **B. ANALYSIS OF EXISTING AIR QUALITY**

Cabot Corporation modeled emissions for Permit Nos. 0920-00001-V0 and PSD-LA-587(M-1), issued November 4, 1999. Because of the overall decrease in emissions from the facility, LDEQ did not require new modeling for this modification.

The modeling analysis for Permit Nos. 0920-00001-V0 and PSD-LA-587(M-1), issued November 4, 1999, is as follows:

Prevention of Significant Deterioration regulations require an analysis of existing air quality for those pollutants to be emitted in significant amounts from a proposed major modification. SO<sub>2</sub> and NO<sub>x</sub> are pollutants of concern in this case.

## **PRELIMINARY DETERMINATION SUMMARY**

**Ville Platte Plant  
Agency Interest No.: 1291  
Cabot Corporation  
Ville Platte, Evangeline Parish, Louisiana  
PSD-LA-587 (M-2)  
April 14, 2009**

ISCST3 modeling of NO<sub>x</sub> emissions from the proposed project indicates that the maximum offsite ground level concentrations of these pollutants will be below their respective PSD significance levels and preconstruction monitoring levels. Therefore, pre-construction monitoring, refined NAAQS modeling, and increment consumption analyses were not required.

However, the model predicted that SO<sub>2</sub> emissions would exceed the significance level, but not the preconstruction monitoring level, for the 3-hour and 24-hour averaging period; consequently, refined NAAQS modeling and increment consumption analyses were required, but preconstruction monitoring was not.

### **C. NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS) ANALYSIS**

Cabot Corporation modeled emissions for Permit Nos. 0920-00001-V0 and PSD-LA-587(M-1), issued November 4, 1999. Because of the overall decrease in emissions from the facility, LDEQ did not require new modeling for this modification.

The NAAQS analysis for Permit Nos. 0920-00001-V0 and PSD-LA-587(M-1), issued November 4, 1999, is as follows:

Because ISCST3 modeling analyses indicated concentrations of NO<sub>x</sub> would be below its PSD ambient significance level, refined NAAQS modeling was not required.

Because the maximum modeled SO<sub>2</sub> impact exceeded its PSD significance level, refined NAAQS modeling was required. Refined modeling demonstrates compliance with the SO<sub>2</sub> NAAQS.

### **D. PSD INCREMENT ANALYSIS**

Cabot Corporation modeled emissions for Permit Nos. 0920-00001-V0 and PSD-LA-587(M-1), issued November 4, 1999. Because of the overall decrease in emissions from the facility, LDEQ did not require new modeling for this modification.

The PSD increment analysis for Permit Nos. 0920-00001-V0 and PSD-LA-587(M-1), issued November 4, 1999, is as follows:

Because ISCST3 modeling analyses indicated concentrations of NO<sub>x</sub> would be below its PSD ambient significance level, PSD increment modeling was not required.

Because the maximum modeled SO<sub>2</sub> impact exceeded its PSD significance level, a determination of PSD increment consumption was required. Modeling demonstrates

## **PRELIMINARY DETERMINATION SUMMARY**

**Ville Platte Plant  
Agency Interest No.: 1291  
Cabot Corporation  
Ville Platte, Evangeline Parish, Louisiana  
PSD-LA-587 (M-2)  
April 14, 2009**

compliance with the allowable Class II PSD increment limit for SO<sub>2</sub>.

A summary of the air quality analyses is also presented in Table II.

### **E. SOURCE RELATED GROWTH IMPACTS**

Operation of this facility is not expected to have any significant effect on residential growth or industrial/commercial development in the area of the facility. No significant net change in employment, population, or housing will be associated with the project. As a result, there will not be any significant increases in pollutant emissions indirectly associated with Cabot Corporation's proposal. Secondary growth effects will include temporary construction related jobs.

### **F. SOILS, VEGETATION, AND VISIBILITY IMPACTS**

There will be no significant impact on area soils, vegetation, or visibility.

### **G. CLASS I AREA IMPACTS**

Louisiana's Breton Wildlife Refuge, the nearest Class I area, is over 100 kilometers from the site, precluding any significant impact.

### **H. TOXIC EMISSIONS IMPACT**

The selection of control technology based on the BACT analysis did not include consideration of control of toxic emissions.

### **V. CONCLUSION**

The Air Permits Division has made a preliminary determination to incorporate changes associated with the previously approved replacement and de-bottlenecking of existing equipment and minor changes at the Ville Platte Plant near Ville Platte, in Evangeline Parish, Louisiana, subject to the attached specific and general conditions. In the event of a discrepancy in the provisions found in the application and those in this Preliminary Determination Summary, the Preliminary Determination Summary shall prevail.

## SPECIFIC CONDITIONS

**Ville Platte Plant**  
**Agency Interest No.: 1291**  
**Cabot Corporation**  
**Ville Platte, Evangeline Parish, Louisiana**  
**PSD-LA-587(M-2)**

1. The permittee is authorized to operate in conformity with the specifications submitted to the Louisiana Department of Environmental Quality (LDEQ) as analyzed in LDEQ's document entitled "Preliminary Determination Summary" dated November 26, 2007, and subject to the following emissions limitations and other specified conditions. Specifications submitted are contained in the application and Emission Inventory Questionnaire dated April 29, 2004, along with a corrected application dated August 19, 2004, and supplemental information dated April 26, 2007, and May 21, 2007.

### MAXIMUM ALLOWABLE EMISSIONS RATES

ID No.	Description		PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>
GRP0001	Process Emissions CAP	lb/hr TPY	65.9 288.6	5604.5 24547.8	353.9 1550.1

2. Process feedstock with a sulfur content of 4.0% (annual average) or less by weight. Exceedences of the sulfur content limit of feedstock to the reactors shall be a violation of this permit and must be reported to the Office of Environmental Compliance, Enforcement Division. Records of the sulfur content of the feedstock oil shall be kept onsite and made available for inspection by the Department.
3. Ensure compliance with the emission limits contained in this permit by instituting a system using a mass balance to calculate the SO<sub>2</sub> emissions. The following variables shall be recorded each week:
  - a. the sulfur content of the feedstock oil to each unit;
  - b. the sulfur content of the carbon black product from each unit;
  - c. the amount of feedstock oil processed in each unit;
  - d. the amount of carbon black produced in each unit;
  - e. the amount of sulfur entering each unit (feedstock oil sulfur content \* amount processed);
  - f. the amount of sulfur entrained in the carbon black product from each unit (carbon black product sulfur content \* amount produced); and
  - g. the amount of SO<sub>2</sub> emitted from the combustion stack (twice the difference between the amount of sulfur entering all units and the amount of sulfur entrained in the carbon black product from all units).
4. Total SO<sub>2</sub> emissions shall be recorded each month and for the preceding twelve months. Emissions above the annual permit limit in any consecutive twelve (12) month period shall be a violation of the permit and must be reported to the Office of Environmental Compliance, Enforcement Division. These records shall be kept on site and available for inspection by the Department. A report showing the calculated SO<sub>2</sub> emissions shall be submitted to the Office of Environmental Compliance, Enforcement Division.
5. Install and maintain the fabric bag filters, Emission Points 32-95 and 69, so that the particulate removal efficiencies of 99.9% are maintained. Filter vents shall be inspected for visible emissions daily when operating. The filter elements (bags) shall be changed as necessary. Records of visual checks and maintenance inspections of the bag filters shall be kept on site and available for inspection by the Office of Environmental Compliance, Surveillance Division.

## **SPECIFIC CONDITIONS**

**Ville Platte Plant**

**Agency Interest No.: 1291**

**Cabot Corporation**

**Ville Platte, Evangeline Parish, Louisiana**

**PSD-LA-587(M-2)**

6. Flares shall be used as Maximum Achievable Control Technology (MACT) for toxic air pollutant emissions of process unit tail gas except for uncombusted tailgas that is used as a fuel in the dryers and oil heaters. Process units shall not produce product if their dedicated flare is inoperable. Ensure destruction of emissions to the flares, EQT 04 (EPN 1-96), EQT 31 (EPN 7-96) and EQT 33 (EPN 67), by installing, maintaining, and operating according to the manufacturer's specifications, a heat sensing device to detect the continuous presence of a flame. Alternate devices may be used with the prior approval of the Office of Environmental Assessment, Environmental Technology Division.
7. Comply with the Louisiana General Conditions as set forth in LAC 33:III.537



**TABLE I: BACT COST SUMMARY**

**Ville Platte Plant**  
**Agency Interest No.: 1291**  
**Cabot Corporation**  
**Ville Platte, Evangeline Parish, Louisiana**  
**PSD-LA-587(M-2)**

Control Alternatives	Availability/ Feasibility	Negative Impacts (a)	Control Efficiency	Emissions Reduction (TPY)	Capital Cost (\$)	Annualized Cost (\$)	Cost Effectiveness (\$/ton)	Notes
<b>Cabot - Ville Platte Plant (UNF001)</b>								
The proposed changes do not require a cost analysis.	-	-	-	-	-	-	-	-
Notes: a) Negative impacts: 1) economic, 2) environmental, 3) energy, 4) safety								

**TABLE II: AIR QUALITY ANALYSIS SUMMARY**

**Ville Platte Plant**  
**Agency Interest No.: 1291**  
**Cabot Corporation**  
**Ville Platte, Evangeline Parish, Louisiana**  
**PSD-LA-587(M-2)**

Pollutant	Averaging Period	Preliminary Screening Concentration ( $\mu\text{g}/\text{m}^3$ )	Level of Significant Impact ( $\mu\text{g}/\text{m}^3$ )	Significant Monitoring Concentration ( $\mu\text{g}/\text{m}^3$ )	Background ( $\mu\text{g}/\text{m}^3$ )	Maximum Modeled Concentration ( $\mu\text{g}/\text{m}^3$ )	Modeled + Background Concentration ( $\mu\text{g}/\text{m}^3$ )	NAAQS ( $\mu\text{g}/\text{m}^3$ )	Modeled PSD Increment Consumption ( $\mu\text{g}/\text{m}^3$ )	Allowable Class II PSD Increment ( $\mu\text{g}/\text{m}^3$ )
SO <sub>2</sub>	3-hour	NR	25	-	-	-	-	1300	-	512
	24-hour	NR	5	13	-	-	-	365	-	91
	Annual	NR	1	-	-	-	-	80	-	20
NO <sub>x</sub>	Annual	NR	1	14	-	-	-	100	-	25
NR = Not required										